

FIG. 1

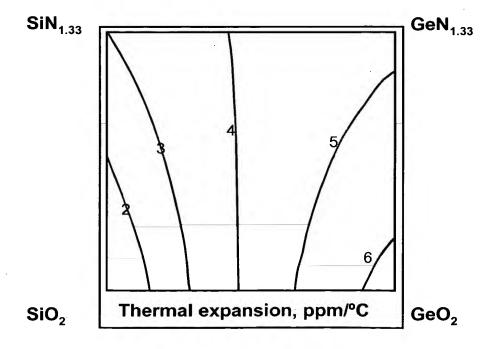


FIG. 2

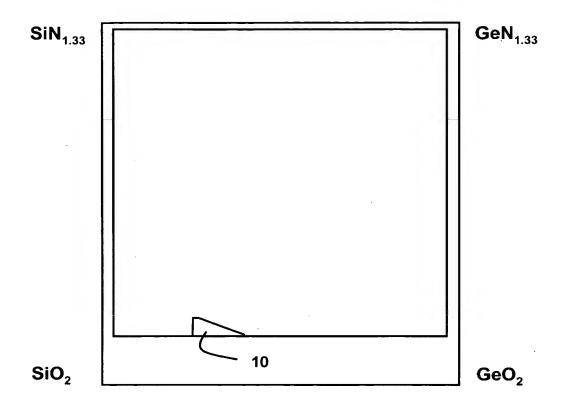
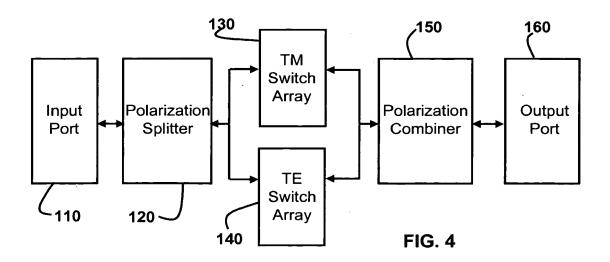
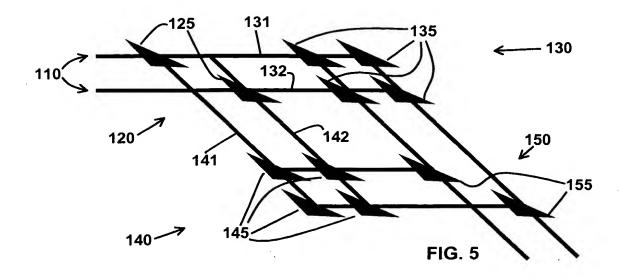


FIG. 3





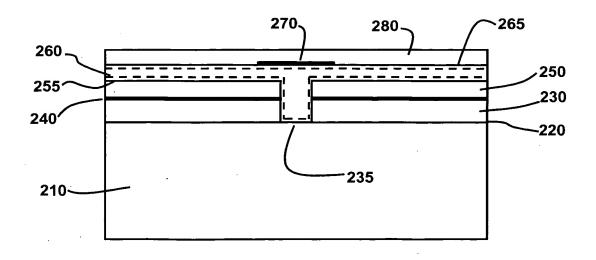
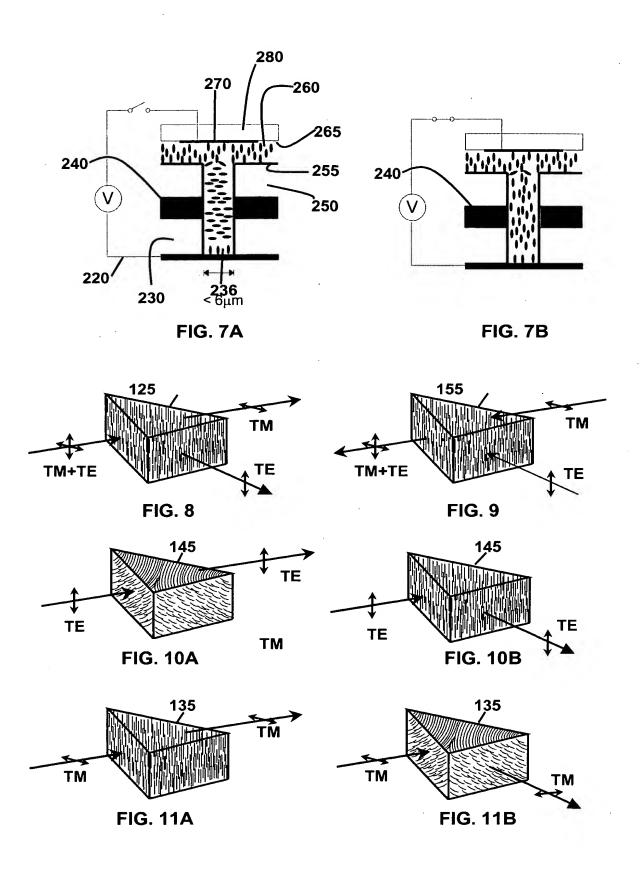


FIG. 6



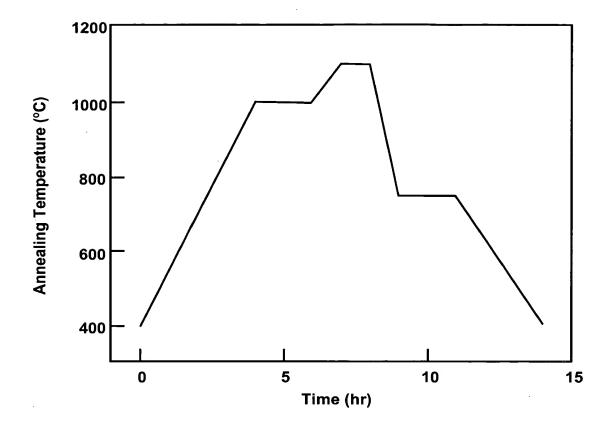


FIG. 12

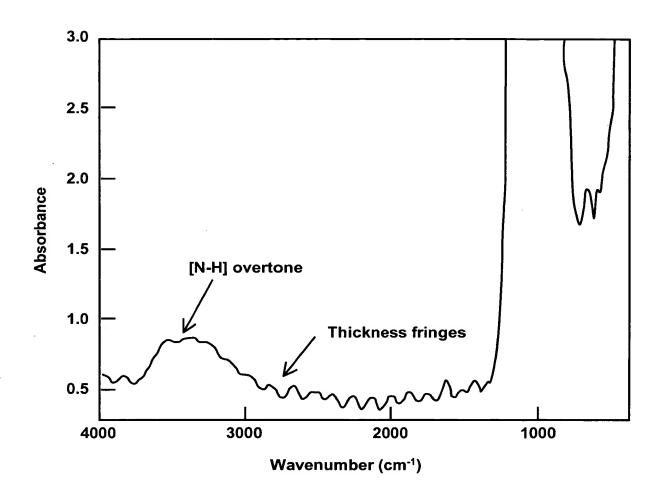


FIG. 13

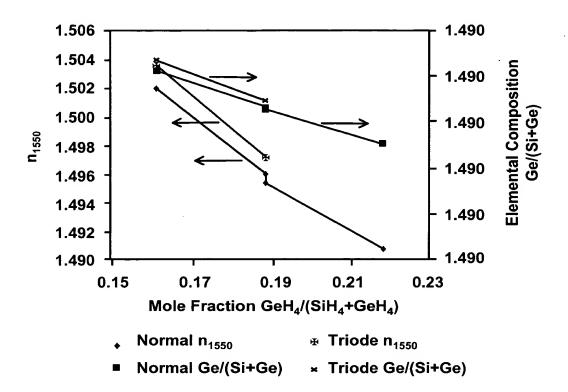


FIG. 14

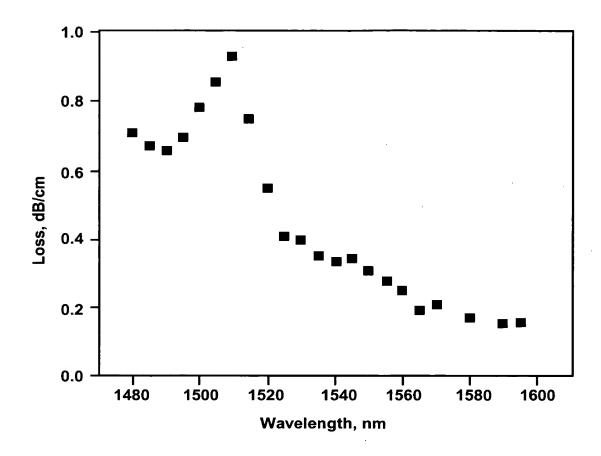


FIG. 15

,

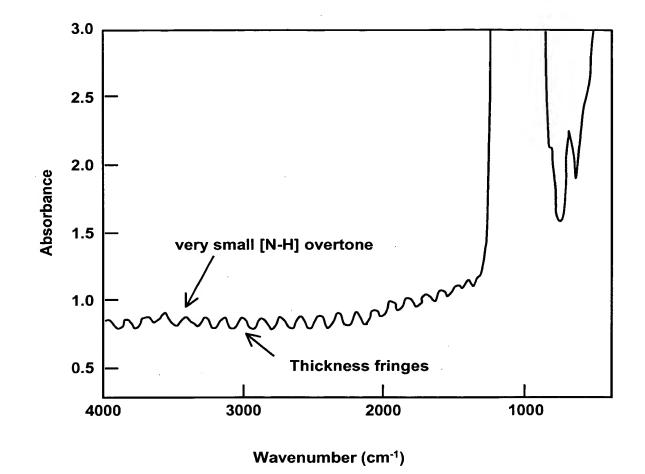


FIG. 16

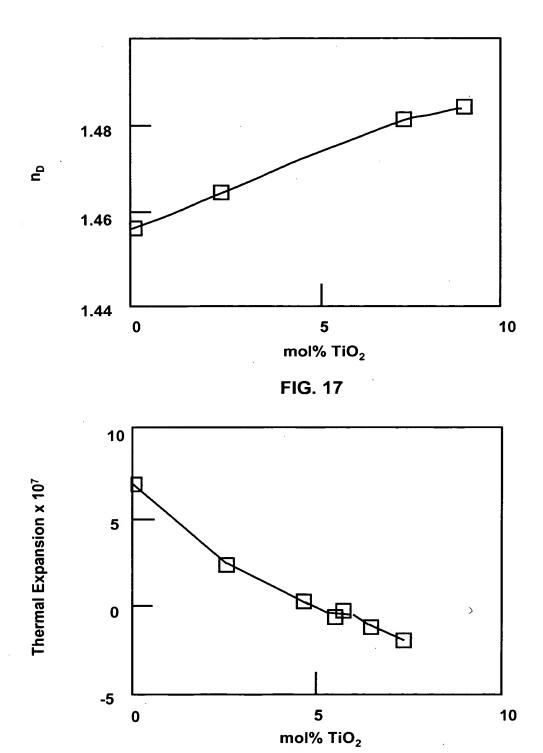
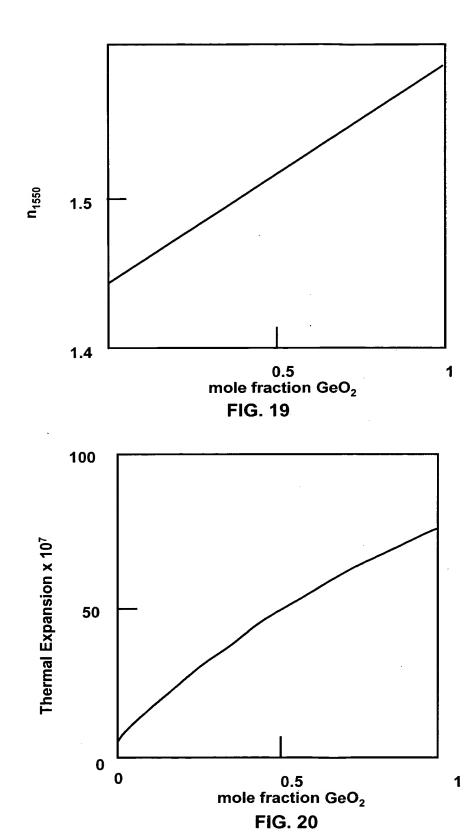


FIG. 18

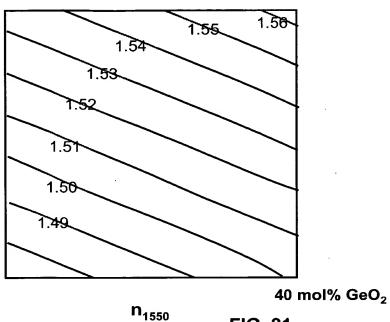






20 mol% TiO<sub>2</sub>

40 mol% GeO<sub>2</sub>. 20 mol% TiO<sub>2</sub>

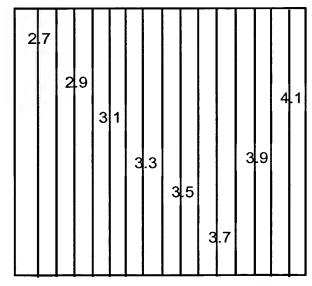


SiO<sub>2</sub>

FIG. 21

20 mol% TiO<sub>2</sub>

40 mol%  ${\rm GeO_2}$ . 20 mol%  ${\rm TiO_2}$ 



 $SiO_2$ 

Thermal expansion, ppm/°C

40 mol% GeO<sub>2</sub>

FIG. 22

